



**Location of Land Resource Region K.**

### **K—Northern Lake States Forest and Forage Region**

This region is in Wisconsin (37 percent), Minnesota (37 percent), Michigan (24 percent), and Illinois (2 percent). It makes up 118,775 square miles (307,795 square kilometers).

This region is in the Central Lowland areas south and west of the western Great Lakes. It is a glaciated region with numerous lakes and wetlands. Slopes are nearly level to gently undulating in areas of glacial lake deposits, gently undulating to rolling on till plains and ground moraines, and steep on end moraines, on valley sidewalls, and on escarpments along the margins of lakes.

Winters are cold in this region, and significant amounts of snow can accumulate. The average annual precipitation ranges from 26 to 34 inches (660 to 865 millimeters). Most of the precipitation falls in spring and summer. The average annual temperature ranges from 39 to 44 degrees F (4 to 7 degrees C). The freeze-free period ranges from 120 to 175 days, increasing in length from north to south.

The total withdrawals of freshwater in this region average about 5,650 million gallons per day (21,385 million liters per day). About 82 percent is from surface water sources, and 18 percent is from ground water sources. Most of the region is used for farming or timber production, but the region is heavily populated from the center of the west shore of Lake Michigan to its southern end. About 75 percent of the water in the region is used for municipal and industrial supply, and 18 percent is used for public supply. Wood pulp, paper, mining, and food-processing industries use significant amounts of the water.

The soils in this region are dominantly Histosols, Alfisols, Spodosols, and Entisols. Some areas also have a significant acreage of Mollisols or Inceptisols. Almost all of the soils in the region have a frigid soil temperature regime, and all have an aquic or udic soil moisture regime. Soils with a mesic soil temperature regime are in many areas in the southern part of the region. Mineralogy is dominantly mixed, but it is isotic in some areas.

About 90 percent of the land in this region is privately owned. Most of the Federal land is in national forests. The native vegetation consists of forest species in about 58 percent of the region. The rest of the region is mainly cropland or grassland. Important crops include corn, wheat, alfalfa, oats, barley, and soybeans. Much of the forage and feed grain grown in the region is used by onsite dairy and beef cattle industries. Other locally important crops include sunflowers, potatoes, edible beans, sweet corn, peas, berries, and fruit. Water erosion, especially on cropland, is a major resource concern. Wind erosion is a hazard in areas of silty and sandy soils. Soil wetness, fertility, and tilth and protection of water quality are additional resource concerns.



**A dominantly forested area of Land Resource Region K in Otter Tail County, Minnesota.**